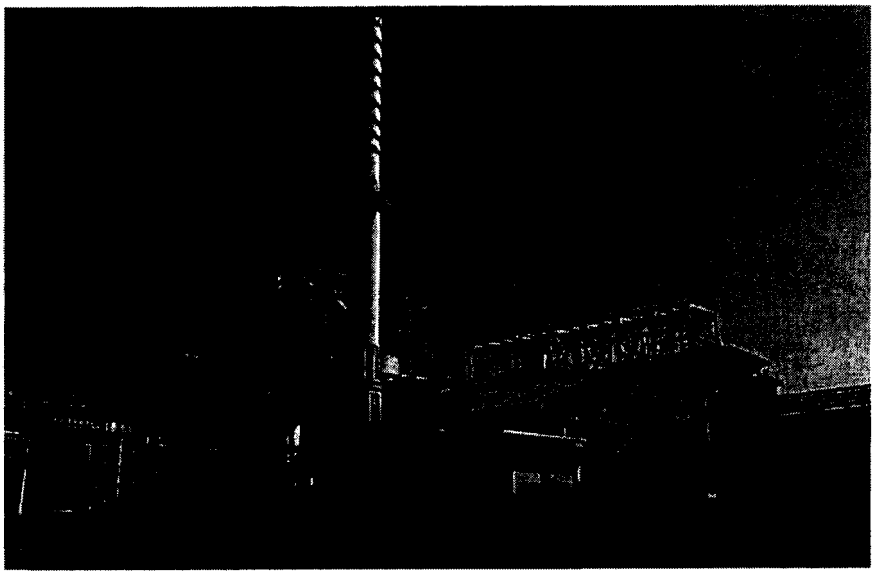
CleanHarbors
ENVIRONMENTAL SERVICES®



Monitoring and Maintaining Carbon Canister for Fugitive Emissions at Tank Farms Work Instructions Standard Operating Procedure El Dorado Facility

El Dorado, AR

TITLE: Monitoring and Maintaining Carbon Canister for Fugitive Emissions at Tank Farms			
Facility: Clean Harbors El Dorado	**Prepared by:** Craig Hudson	**SOP Number:** 69EL-104-174-03	**Page 2 of 4**
Reviewed By: William Simmons	**Title:** Maintenance Manager	**Issue Date:** 8/21/2010	
Reviewed By: Russell Hargiss	**Title:** Health and Safety Manager	Revision Number and Date: 2, 11/20/2011 / 3, 1/24/2013	
Approved By: Dan Roblee	**Title:** General Manager	**Next Review Date:** 01/24/2014	

1.0 Objective

To establish the performance standard for testing and changing out of carbon canisters on volatile organic storage vessels which fall under 40 CFR Part 60, Subpart Kb as well as RCRA 40 CFR Part 264 Subpart CC.

2.0 Site Specific Terms

Carbon canisters are used for filtering tanks emissions, tanks are used for fuel blending for Waste Fire Boiler, Kilns, and SCC

3.0 Responsibilities

The General Manager will ensure that all employees are trained and knowledgeable regarding the proper operating procedures.

The Maintenance Manager is responsible for monitoring, and enforcing this procedure with the employees.

Employees are responsible for following and adhering to safe work practices and all provisions found in this procedure.

4.0 Prerequisites

Health and Safety:

1) See Appendices, Review the Job Hazard Analysis, PPE Hazard Assessments
2) LOTO, confined space entry, line break and hot work procedure training

5.0 Procedure

5.1 Fugitive Emission Monitor

a) Calibrate test equipment, before making checks.

b) Perform weekly inspections of mechanical seals on pumps.

c) Monitor tank farm carbon filters once weekly or as required under 40 CFR Part 60, Subpart Kb as well as RCRA 40 CFR Part 264 Subpart CC.

- Start daily sampling when: Either condition will trigger daily sampling: 1.) If you have 3 or more consecutive failures during your weekly sampling. 2.) If you have 10 or more failures in a rolling 30 week period.

- Return to daily sampling when: Both conditions must be met to return to weekly sampling. 1.) If you have 2 or less consecutive failures during your daily sampling. 2.) If you have 9 or less failures in a rolling 30 day period.

d) Identify leak points and create a corrective work order, follow up on repairs by retesting for compliance within the 24 hour timeframe required under the regulations.

e) Update log of process equipment database of completed checks, record new or retested check points. Send results to Compliance Department.

5.2 Maintaining failed Carbon Canisters

a) Buy out new carbon out from central using work order (copy is attached)

b) Follow the PPE Procedure

c) Remove lid ring and lid from carbon canister to access used / spent carbon

d) Empty out all used / spent carbon from canister by using a bucket (5-gal) and put in an empty (55-gal fiber), if spent carbon contains liquid insure empty fiber is lined with plastic to prevent any possible leakage

e) After emptying the canister of all carbon ensure there is no liquid in bottom of canister, if there is any liquid found in the canister contact the operator and or supervisor, if no liquid is found proceed with putting new carbon in canister

f) Open new drum of carbon, empty new carbon in to canister by using a bucket (5-gal) or approved method by supervisor (boom lift) , only one drum of carbon per canister

g) After emptying new carbon into canister re-install the canister lid and ring, ensuring lid ring is tight to prevent any leaks.

h) Clean all carbon from outside canister and/or ground that may have spilt from the carbon change. Confirm Grounding cables are properly connected.

i) Notify supervisor when carbon change is complete and turn in work order completed.

6.0 Consequences of Deviations

- Personal injury
- Regulatory violations and/or fines
- Damaged agency relations
- Adverse harm to the environment and increased risk to human health
- Disciplinary actions up to and including termination

- Possible down time / loss of production

7.0 Appendices

Emissions Corrective Action Order Form

Sample tracking and work order forms

Quiz – See file "Quiz – Maintaining Carbon Canister.doc"

Job Hazard Analysis – See file "JHA – Maintaining Carbon Canister.doc"

PPE Hazard Assessment – See file "PPE –. Maintaining Carbon Canister doc"

Approvals

General Manager

Health & Safety Manager

Facility Engineering Manager

Maintenance Manager

Incineration Manager 1/25/13

Compliance Manager

Facility Operations Manager

SOP Revision History

Revision Date		Revisions Made	Revised By	Approved By
11/2011		Updated the emissions monitoring schedule to include minutes	Jerry Funderburg	William Simmons
01/2013		Revised to include lining fiber drums if needed, updated the methods to transfer new carbon to canister	Craig Hudson	William Simmons

ECAO FORM

EMISSIONS CORRECTIVE ACTION ORDER

DATE..... **ECAO NUMBER.....**

ISSUED TO..... **WORK ORDER**

CORRECTIVE ACTION REQUESTED
Change Charcoal .....
.....

EQUIPMENT NUMBER.....

POINT NUMBER.....

TAG NUMBER.....

PRIORITY CODE..... 1

COMPLIANCE TIME..... 5 DAY

REQUESTED BY.....
REMARKS / COMMENTS.....
.....
.....
.....

COMPLETION DATE..... / /

DATE CLOSED..... / /

TECH SIGNATURE _____

SAMPLE (for SOP use only)

Unit ID #	State	Service Days	Test Date	Pass Value	Measure Value	Retest RE-Test Date	Measure Value RE-TEST	Visual Measure	Drawing Number	WORK ORDER #
CARBON FILTERS FOR TANKS 012 AND 015										
144FLS001	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	51	
144FLS003	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	53	
144FLS004	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET		
144FLS004A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET		
144FLS008A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	46	
144FLS008B	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	46	
144FLS009	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	40	
144FLS009A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	40	
144FLS010	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	44	
144FLS010C	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	44	
144FLS011	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	48	
144FLS011A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	48	
144FLS012	Light Liquid	7	1/18/2012	500PPM	* PPM	1/19/2012	0 PPM	MFET	85	111474
144FLS012A	Light Liquid	7	1/18/2012	500PPM	* PPM	1/19/2012	0 PPM	MFET	85	111474
144FLS013	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	84	
144FLS013A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	84	
144FLS014	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	82	
144FLS014A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	82	
144FLS015	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	81	
144FLS015B	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	81	
144FLS037	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	N/A	
600FLS201A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	120	
600FLS201B	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	120	
600FLS202A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	121	
600FLS202B	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	121	
600FLS203A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	122	
600FLS203B	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	122	
600FLS204A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	123	
600FLS204B	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	123	
600FLS001A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET		
600FLS001B	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET		
144FLS204W	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	163	
144FLS204W1	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	163	
144FLS204WA	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET		
144FLS204WA1	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET		
144FLS204WB	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET		
144FLS204WB1	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET		
144FLS501A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	64	
144FLS501B	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	64	
144FLS602	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	77	
144FLS602A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	77	
144FLS603	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	80	
144FLS603A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	80	
144FLS604A	Light Liquid	7	1/18/2012	500PPM	* PPM	1/19/2012	0 PPM	MFET	76	111473
144FLS604B	Light Liquid	7	1/18/2012	500PPM	* PPM	1/19/2012	0 PPM	MFET	78	111473
144FLS605A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	75	
144FLS605B	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	75	
144FLS606	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	79	
144FLS606A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	79	
144FLS607	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	78	
144FLS608	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	83	
144FLS608A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	83	
144FLS609	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	86	

SAMPLE (for SOP use only)

Unit ID #	State	Service Days	Test Date		Measure Value		Measure Value	Visual Measure	Drawing Number	
////////////////	////////////	////////////	////////////	////////////	////////////	Re-Test Dat	RE-TEST	////////////		
144FLS609A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	86	
144FLS2418	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	194	
[illegible]LS2418A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	194	
144PMP012	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	97	
144PMP013	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	96	
144PMP014	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	94	
144PMP015	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	93	
144PMP602	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	89	
144PMP603	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	92	
144PMP604	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	88	
144PMP605	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	87	
144PMP606	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	91	
144PMP607	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	90	
144PMP608	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	95	
144PMP609	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	98	
144PMP629	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	VFET	68	
145FLS203A	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	187	
			1/18/2012							
144TNK008	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	46	
144TNK010	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	44	
144TNK011	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	48	
144TNK501	Light Liquid	7	1/18/2012	500PPM	0 PPM		0 PPM	MFET	64	
						Re-Test Date				

SAMPLE (for SOP use only)

Infor EAM

Print Short WO Cards

INFOR

Work Order	111474 (EL)	CHANGE CHARCOAL		**Scheduled Start Date**	01/18/2012
Status	Closed			**WO Type**	CM
Parent Work Order				**Class**	FUGITIVE
Department	MAINTENANCE	Maintenance		**Priority**	2
PM Code				**Warranty**	N
Cost Code				**Safety**	N
Problem Code				**Equip Criticality**	
Reported By				**Assigned To**	HUDSONP1
				Assigned By	FUNDERJ1
Standard WO					
Equipment	144TNK012 (EL)		TANK #012 LIQ DAY TANK STORAGE LOCATED WEST OF TOU SIZE 14'X 18' 19,575 GAL.		
Location					
Equipment Manufacturer				**Estimated Hours**	2
Equipment Model				**Estimated Cost**	62.00
Equipment Serial Number				**Actual Cost**	617.28
Date Started	01/18/2012 @ 10:31			**Date Completed**	01/19/2012 @ 08:31

Activities

Activity	Trade	Est. Hours	People Req.	Task	Description
501	MECH	2	2		

SAMPLE (for SOP use only)

Infor EAM

Print Short WO Cards

INFOR

Work Order	111473 (EL)	CHANGE CHARCOAL		Scheduled Start Date	01/18/2012
Status	Closed			WO Type	CM
Parent Work Order				Class	FUGITIVE
Department	MAINTENANCE	Maintenance		Priority	2
PM Code				Warranty	N
Cost Code				Safety	N
Problem Code				Equip Criticality	
Reported By				Assigned To	HUDSONP1
				Assigned By	FUNDERJ1
Standard WO					
Equipment	144TNK604 (EL)		TANK #604 DAY FEED STORAGE SIZE 14'X 18' 19,575 GAL 1/4" C.S. PLATE, CONE ROOF		
Location					
Equipment Manufacturer				Estimated Hours	2
Equipment Model				Estimated Cost	62.00
Equipment Serial Number				Actual Cost	593.44
Date Started	01/18/2012 @ 10:30			Date Completed	01/19/2012 @ 08:30

Activities

Activity	Trade	Est. Hours	People Req.	Task	Description
501	MECH	2	2		